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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,854	06/27/2003	William A. Groll	916-030447	7107
28289	7590	10/14/2005	EXAMINER	
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			ZIMMERMAN, JOHN J	
			ART UNIT	PAPER NUMBER
			1775	

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/607,854

Applicant(s)

GROLL, WILLIAM A.

Examiner

John J. Zimmerman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 2-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## SECOND OFFICE ACTION

### *Amendment*

1. The Amendment received August 10, 2005 has been entered. Claims 2-9 are pending in this application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulam (U.S. Patent 4,646,935) in view of Koma (Japanese publication 2002-017560).

4. Ulam discloses making induction cookware by cladding a carbon steel core with outer stainless steel layers wherein the total thickness of the three layers is between 0.015-0.050 inch and the thickness of each of the stainless steel layers is ten to twenty percent of this total thickness (e.g. see column 3, lines 9-13; Figure 2). Carbon steel is a ferromagnetic material. Ulam further discloses that an exterior layer of copper may be used over or in lieu of the stainless

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steel outer layer (e.g. column 4, lines 45-50). Although Ulam may not specify cooking rice in his induction cookware vessel (e.g. see 5-8), it would be understood by one of ordinary skill in the art that the cookware of Ulam would be able to cook typical foods, including rice. The applicant's claimed intended use of the cookware as a "rice cooker" adds no further limitations to the claims. Ulam may differ from the claims in that Ulam may not disclose the thickness of such a copper outer layer, but it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the thickness of such a layer so that it would be thin enough so as not to interfere with the induction function of the carbon steel layer while being thick enough to withstand wear that occurs to the outer layer of cookware. On this issue, Koma confirms that when a layer of copper or aluminum is used as an outer layer on induction cookware, the thickness of the outer copper or aluminum layer should be optimized. Koma discloses rice cooker induction cookware wherein the ferritic stainless steel layer (10) is clad with aluminum layers or copper layers (11a, 11b) in thicknesses of 18  $\mu\text{m}$  (0.0007") and 28  $\mu\text{m}$  (0.0011"), respectively (e.g. see paragraph [0023], Figures 2a, 2b). Koma discloses that these particular layer thicknesses allow for particularly efficient generation of heat and temperature uniformity (e.g. paragraphs [0007], [0014]-[0015], [0023]). Koma also discloses that using these outer layers also allows for a more decorative appearance which can be further enhanced by anodization (e.g. see paragraph [0005], [0028]). In addition, Koma discloses that a further polyester coating (12) can be applied to these surfaces (i.e. non-stick). It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the thickness of the copper outer layer of Ulam in the thickness range of 28  $\mu\text{m}$  (0.0011") because Koma discloses that when a copper outer layer is used in induction cookware, a thickness in this

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range will optimize the heating performance of the induction cookware. In addition, in view of the fact that Ulam allows for an exterior ply of copper would be understood by the skilled artisan to clearly allow for other common cookware exterior finishes such as anodized aluminum as evidenced by Koma. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an exterior finish for the cookware of Ulam that would match current common cookware finishes since Ulam clearly allows for alternative exterior finishes to stainless steel and anodized aluminum is one of the more common cookware exterior finishes now used as is evidenced by Koma. While Ulam may not disclose using a nonstick inner layer on his cookware, such nonstick finishes are now conventional for cookware in order to make the cookware easier to clean and allow for the use of less oil during cooking and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a nonstick surface to the inner layer of Ulam's cookware in order to make the cookware more acceptable to those consumers. It must be assumed that one of ordinary skill in the art understands what basic coatings and finishes are used in commercial cookware. While it is noted that Koma's induction laminate is used in a cooking vessel where only the lid of the vessel is constructed to be heated by induction (instead of the bowl of the vessel), it would be understood by one of ordinary skill in the art that the induction principles taught by Koma would be applicable to any part of an induction cooking vessel that is intended to be heated by induction. Ulam clearly shows that the bowl of the vessel may be the part intended for induction heating. Using the concepts disclosed by Koma for the induction heated bowl of Ulam's vessel would have been obvious to one of ordinary skill in the art at the time the invention was made because the basic concept of optimizing the thickness of the copper or aluminum layers would be the

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same regardless of where the cooking vessel is constructed to be heated. One of ordinary skill in the art must be capable of understanding basic concepts and principles disclosed by the prior art and applying them appropriately.

### ***Response to Arguments***

5. Applicant's amendments and arguments filed August 10, 2005 have been fully considered and overcome the rejections in the First Office Action. Applicant's amendments and arguments, however, are not persuasive with regards to the prior art as combined in the new rejection above. Koma has been applied with Ulam to emphasize that one of ordinary skill in the art clearly understands that the thickness of copper and/or aluminum outer layers should be optimized when used in induction cookware. Koma clearly shows that using such optimized outer copper or aluminum layers enhances performance of the induction cookware while also allowing for a more aesthetic product.


### ***Conclusion***

6. In view of the new rejection, this Second Office Action will not be made Final.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Zimmerman  
Primary Examiner  
Art Unit 1775

jjz  
October 11, 2005